

## CLAIMS

### WHAT IS CLAIMED IS:

1. A traffic noise barrier wall comprising:
  - a first vertically-mounted post including a first slot disposed therein, the first slot extending lengthwise along a side of the first post;
  - a second vertically-mounted post spaced apart from the first post, the second post including a second slot disposed therein, the second slot extending lengthwise along a side of the second post; and
  - a first panel assembly extending between the first and second posts, the first panel assembly including:
    - a sheet of material having top, bottom, and side edges forming a perimeter of the sheet, and
    - a frame disposed along at least a portion of the perimeter of the sheet, wherein side portions of the frame capture at least a portion of the side edges of the sheet, the side portions of the frame being received within the first and second slots in drop-down fashion.
2. The traffic noise barrier wall of claim 1, wherein each of the side portions of the frame includes:
  - a base portion disposed outside one of the side edges of the sheet;
  - first and second flange portions disposed on the base portion, the first and second flanges forming at least a portion of a channel for capturing the side edge of the sheet, wherein at least the base portion is received in one of the first and second slots.
3. The traffic noise barrier wall of claim 2, wherein the sheet has a thickness substantially less than a width of each of the first and second slots.
4. The traffic noise barrier wall of claim 3, wherein the sheet has a thickness less than a thickness of the first flange and less than a thickness of the second flange.

5. The traffic noise barrier wall of claim 3, wherein an elastomeric gasket is disposed between the outer surfaces of the side portions of the frame and surfaces forming the channel.
6. The traffic noise barrier wall of claim 2, wherein the base portion and the first and second flanges are formed from a single piece of material.
7. The traffic noise barrier wall of claim 2, wherein the first and second flanges are formed from tubing coupled to a plate forming the base portion.
8. The traffic noise barrier wall of claim 2, wherein an elastomeric gasket covers at least a portion of the side edge of the sheet captured within the channel.
9. The traffic noise barrier wall of claim 2, wherein the base portion is disposed outside the entire perimeter of the sheet, and the channel formed by the base portion and the first and second flanges capture a portion of each of the top, bottom, and side edges of the sheet.
10. The traffic noise barrier wall of claim 9, wherein the base portion of the frame and the first and second flanges disposed on each of the top, bottom, and side edges of the sheet are formed from a single piece of material.
11. The traffic noise barrier wall of claim 9, wherein the first and second flanges disposed on each of the top, bottom, and side edges of the sheet are coupled to a surface of the base portion.
12. The traffic noise barrier wall of claim 9, further comprising:  
a second panel assembly extending between the first and second posts, and the frame of the first panel assembly includes at least one of a protrusion and a recess disposed on the base portion for interlocking with the second panel assembly.
13. The traffic noise barrier wall of claim 1, wherein the sheet is formed from a transparent material.

14. The traffic noise barrier wall of claim 1, wherein the frame extends along the entire perimeter of the sheet and captures at least a portion of each of the top, bottom and side edges of the sheet.

15. A panel assembly for a traffic noise barrier wall of the type including opposing slots formed in pairs of vertically-mounted posts, the panel assembly comprising:  
a sheet of material having top, bottom, and side edges forming a perimeter of the sheet, and  
a frame disposed along at least a portion of the perimeter of the sheet, wherein side portions of the frame capture at least a portion of the side edges of the sheet, the side portions of the frame being received within the opposing slots in drop-down fashion.

16. The panel assembly of claim 15, wherein each of the side portions of the frame includes:

a base portion disposed outside one of the side edges of the sheet;  
first and second flanges extending from the base portion, the first and second flanges forming at least a portion of a channel for capturing the side edge of the sheet, wherein the base portion and at least a portion of the first and second flanges are received in one of the opposing slots.

17. The panel assembly of claim 16, wherein the sheet has a thickness substantially less than a width of each of the opposing slots.

18. The panel assembly of claim 17, wherein the sheet has a thickness less than a thickness of the first flange and less than a thickness of the second flange.

19. The panel assembly of claim 17, wherein an elastomeric gasket is disposed between the outer surfaces of the side portions of the frame and surfaces forming the channel.

20. The panel assembly of claim 16, wherein the base portion and the first and second flanges are formed from a single piece of material.

21. The panel assembly of claim 16, wherein the first and second flanges are coupled to a surface of the base portion.

22. The panel assembly of claim 16, wherein an elastomeric gasket covers at least a portion of the side edge of the sheet captured within the channel.

23. The panel assembly of claim 16, wherein the base portion is disposed outside the entire perimeter of the sheet, and the channel formed by the base portion and the first and second flanges capture a portion of each of the top, bottom, and side edges of the sheet.

24. The panel assembly of claim 23, wherein the base portion of the frame and the first and second flanges disposed on each of the top, bottom, and side edges of the sheet are formed from a single piece of material.

25. The panel assembly of claim 23, wherein the first and second flanges disposed on each of the top, bottom, and side edges of the sheet are coupled to a surface of the base portion.

26. The panel assembly of claim 23, further comprising:  
at least one of a protrusion and a recess disposed on the base portion for interlocking with a second panel assembly.

27. The panel assembly of claim 15, wherein the sheet is formed from a transparent material.

28. The panel assembly of claim 15, wherein the frame extends along the entire perimeter of the sheet and captures at least a portion of each of the top, bottom and side edges of the sheet.